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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/737,968 | 12/18/2000 | Masahiko Sugimoto | 1982-0161P | 9946 |

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| EXAMINER | |
|---|---|
| JERABEK, KELLY L | |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2612 | |

DATE MAILED: 02/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 09/737,968 | SUGIMOTO ET AL. | |
| | Examiner | Art Unit | |
| | Kelly L. Jerabek | 2612 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *01 December 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

## DETAILED ACTION

### *Continued Examination Under 37 CFR 1.114*

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/1/2005 has been entered.

### *Response to Arguments*

Applicant's arguments with respect to claims 1-23 have been considered but are moot in view of the new ground(s) of rejection.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

**Claims 1-23 rejected under 35 U.S.C. 102(e) as being anticipated by Hashimoto US 6,704,054.**

Re claim 1, Hashimoto discloses in figure 1 an electronic image pickup apparatus for forming an image of an object. The electronic image pickup apparatus includes a focusing lens group (3) that is movable along an optical axis in order to focus an image of a subject and an image sensor (5) for forming a subject image (col. 4, lines 38-50). A focus motor (22) is provided in order to move the focusing lens group (3) along the optical axis to an in-focus state (col. 7, lines 43-53). In addition, the electronic image pickup apparatus includes a central processing unit (15) that is electronically connected to both the image sensor (5) and the focus motor (22) as shown in figure 1. The CPU (15) carries out infrared active AF processing in order to detect the distance between the pickup apparatus and a subject (col. 8, lines 11-28). The CPU (15) then compares the detected subject distance with a predetermined value stored in advance in EEPROM (25) and performs auto-focus processing in a first range or a second range depending on whether the detected distance is greater or less than the predetermined value (col. 8, lines 28-52). Therefore, it can be seen that the program logic (autofocus processing) of the CPU (15) is performed in accordance with predetermined conditions

(predetermined distance data and predetermined calcualtions) stored in memory. When the CPU (15) performs autofocus processing in both the first range and the second range, the CPU (15) determines a start point of a search for an in-focus position and controls the motor (22) to move the focusing lens group (3) from the start point until an in-focus position is reached based on analyzing electronic information received from the image sensor (5) (AF processing in second range: col. 9, line 52 – col. 10, 67; AF processing in first range: col. 11, lines 15-52).

Re claim 2, Hashimoto discloses in figure 4 the series of operation of the focus lens group (3) when the AF processing is in the second range corresponding to the subject distance being longer than a predetermined distance. The focus lens group (3) is first shifted from position (A) to the calculated start position (B) and the focus lens group (3) continues to move in the forward direction until it reaches the stop position (C). Finally, the focus lens group (3) is moved backward to the in-focus position (D) (col. 10, lines 58-67). Therefore, it can be seen that the focusing lens is movable forward and backward along the optical axis and the program logic determines in accordance with the predetermined conditions to search one of forward and back from the start point along the optical axis for an in-focus position.

Re claim 3, Hashimoto states that the CPU (15) compares a detected subject distance with a predetermined value and performs autofocus processing in a first range

or a second range depending on whether the detected distance is greater or less than the predetermined value (col. 8, lines 28-52).

Re claim 4, Hashimoto states that during autofocus processing, once the focus lens group (3) reaches the calculated stop position, the CPU (15) calculates an in-focus position (col. 10, lines 45-55).

Re claim 5, Hashimoto states that if the focus lens group (3) has not reached the stop position (lens is not yet in an in-focus position) the CPU (15) obtains an AF evaluation value and moves the focus lens group (3) by a predetermined amount (col. 10, lines 30-44). Therefore, if the focus lens group (3) has not yet reached the stop position (search for an in-focus position unsuccessful) the program logic controls the motor to move the focusing lens to a predetermined position.

Re claim 6, Hashimoto states that the CPU (15) performs program logic (autofocus processing) in accordance with predetermined conditions (predetermined distance data and predetermined calcualtions) stored in memory (col. 8, lines 4-52). The predetermined conditions (predetermined distance data and predetermined calcualtions) include a situation where the subject is close to the imaging apparatus such that the distance calculated by the infrared active AF processing is less than a predetermined distance (first range) and a situation where the subject is farther from the imaging apparatus such that the distance calculated by the infrared active AF

processing is longer than a predetermined distance (second range) (col. 9, lines 22-48). Therefore, the predetermined conditions include at least a close-up mode (first range) and a landscape mode (second range). Additionally, Hashimoto states that the infrared active AF technique can be implemented even if the environment is in a low luminance condition (col. 1, lines 54-64). Therefore, the predetermined conditions may also include a night scene mode for low luminance conditions.

Re claim 7, depending on the result of the infrared active AF processing the CPU (15) performs autofocus processing in a first range or a second range depending on whether the detected distance is greater or less than the predetermined value (col. 8, lines 28-52). Figure 3 discloses autofocus processing in the second range corresponding to a subject being located relatively far away from the imaging apparatus. In steps S16 and S17 an in-focus position is calculated and the focus lens group (3) is drive to that position (col. 10, lines 45-55). Figure 5 discloses autofocus processing in the first range corresponding to a subject being located relatively close to the imaging apparatus. In steps S26 and S 27 an in-focus position is calculated and the focus lens group (3) is drive to that position (col. 11, lines 45-52). Therefore, it can be seen that an in-focus position is predetermined to be at one of a close position corresponding to the first range and a far position corresponding to the second range. Also, when autofocus processing is performed in the first range corresponding to a subject being located relatively close to the imaging apparatus the start value is obtained by subtracting a value Gs from a set value representing the infrared result and further subtracting a

variable Gp (col. 11, lines 19-30). The subject distance calculated through the infrared active AF processing is clearly shorter for first range than for the second range (col. 9, lines 33-48). Therefore, it can be seen in figure that when the in-focus position is predetermined to be at the close position side (first range) the start point (B) is the close position (subject distance calculated through the infrared active AF processing - Gs - Gp) and the search proceeds toward the far position when the focusing lens (3) moves from point B to point C. Furthermore, when autofocus processing is performed in the second range corresponding to a subject being located relatively far from the imaging apparatus the start value is obtained by subtracting a value Gs from a set value representing the infrared result (col. 9, lines 58-61). Therefore, it can be seen that when the in-focus position is predetermined to be at the far position side (second range) the start point (B) is the far position (subject distance calculated through the infrared active AF processing - Gs) and the search proceeds toward the close position when the focusing lens (3) moves from point C to point D.

Re claim 8, see claim 1.

Re claim 9, see claim 2.

Re claim 10, see claim 3.

Re claim 11, see claim 4.

Re claim 12, see claim 5.

Re claim 13, see claim 6.

Re claim 14, see claim 7.

Re claim 15, Hashimoto states that the electronic imaging apparatus includes a CPU (15). The CPU (15) includes a recording medium (25) that stores programs from implementing various control functions (col. 5, lines 30-34). For the rest of claim 15, see claim 1.

Re claim 16, Hashimoto states that the electronic imaging apparatus includes a CPU (15). The CPU (15) includes a recording medium (25) that stores programs from implementing various control functions (col. 5, lines 30-34). For the rest of claim 16, see claim 2.

Re claim 17, Hashimoto states that the electronic imaging apparatus includes a CPU (15). The CPU (15) includes a recording medium (25) that stores programs from implementing various control functions (col. 5, lines 30-34). For the rest of claim 17, see claim 3.

Re claim 18, Hashimoto states that the electronic imaging apparatus includes a CPU (15). The CPU (15) includes a recording medium (25) that stores programs from implementing various control functions (col. 5, lines 30-34). For the rest of claim 18, see claim 4.

Re claim 19, Hashimoto states that the electronic imaging apparatus includes a CPU (15). The CPU (15) includes a recording medium (25) that stores programs from implementing various control functions (col. 5, lines 30-34). For the rest of claim 19, see claim 5.

Re claim 20, Hashimoto states that the electronic imaging apparatus includes a CPU (15). The CPU (15) includes a recording medium (25) that stores programs from implementing various control functions (col. 5, lines 30-34). For the rest of claim 20, see claim 6.

Re claims 21-23, Hashimoto states that the search area of the image within the imaging position is determined in accordance with the predetermined conditions (col. 8, lines 11-52).

***Contacts***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kelly L. Jerabek whose telephone number is **(571) 272-7312**. The examiner can normally be reached on Monday - Friday (8:00 AM - 5:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Ometz can be reached on **(571) 272-7593**. The fax phone number for submitting all Official communications is **(703) 872-9306**. The fax phone number for submitting informal communications such as drafts, proposed amendments, etc., may be faxed directly to the Examiner at **(571) 273-7312**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KLJ

Examiner: Lin Ye
Technology Division 2622